THE GENESEE FARMER.

VOL. VIII. ROCHESTER, N. Y. JANUARY 13, 1838. NO. 2.

PUBLISHED BY LUTHER TUCKER.

TERMS.—The Farmer is published every Saturday, making an annual volume of 416 pages, to which is added a Title-page and Index, at the low price of $2,50, or $2,00 if payment is made at the time of subscribing.

☞ All subscribers must commence with the volume, Jan. 1, or with the *half* volume, July 1. No subscription taken for less than *six* months.

☞ THE MONTHLY GENESEE FARMER *is* made up of selections from this paper, and published on the first of each month, forming, with the Title-page and index, an annual volume of 200 pages, at the low price of FIFTY CENTS a year, *payable always in advance.*—Eleven copies for Five Dollars.

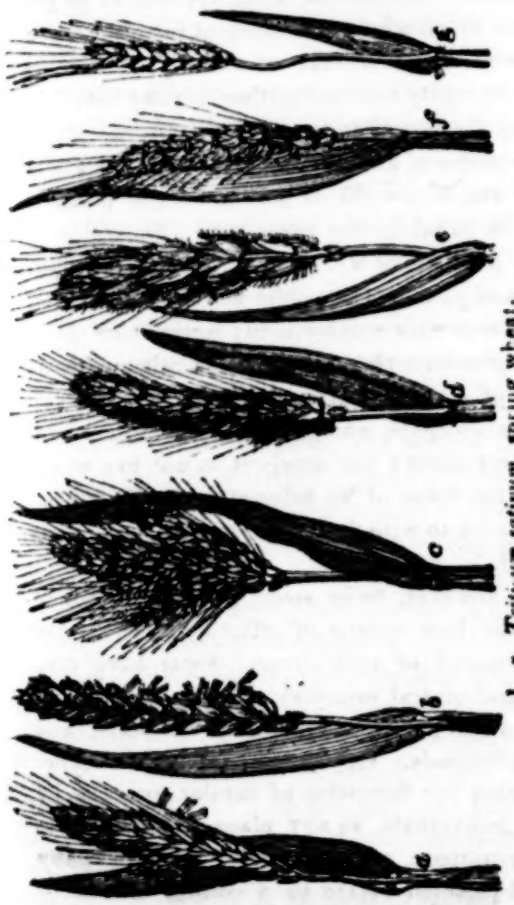
THE GENESEE FARMER.

SATURDAY, JANUARY 13, 1838.

☞ No paper can be discontinued without the payment of the sum due for it. It is our intention hereafter to publish the names of such persons as stop their papers without paying arrearages, with the amounts for which they are severally indebted.

On the Culture of Wheat—No. 1.

Writers on the natural history of plants, have enumerated seven species of this most important of the cereal gramina; and we present the figures (Fig. 1.) in this number of the Farmer, as copied from Loudon's Encyclopedia. They are named as follows:



a. Triticum sativum, spring wheat.
b. hybernum, winter wheat.
c. compositum, Egyptian wheat.
d. turgidon, turgid wheat.
e. polonicum, Polish wheat.
f. spelta, spelt wheat.
g. monococcum, one grained wheat.

Loudon remarks, "that the first, second, fourth, and fifth sorts are by many botanists considered as only varieties, and it is doubtful whether the third and sixth may not be the same; the seventh has all the marks of a distinct species, but it is very questionable whether, if much cultivated, it would always continue to produce one row of grains." We are inclined to consider the spring, winter, Egyptian, turgid, and Polish wheat, as but varieties of one species; and that the spelt wheat and one grained are to be considered as separate species. This opinion is rendered more probable from the recently discovered fact, "that the white, red, awned or bearded, and the beardless wheats, change and run into each other, in different soils and climates; and even the Egyptian is known to change to the single spiked common plant." (Ency. Amer.) On the contrary the spelt, and one grained, have never been known to change their peculiar characters, and the spelt in particular, from the nature of its adhering husk appears as distinctly marked as rice or barley.

If an adaptation to all the temperate countries, and all the elevated regions of the torrid parts of the globe—if the greatest quantity of nutritive matter to be found in any vegetable or animal substance—if a preparation by nature for the composition of bread superior to any thing else, can entitle any single plant to the preference and cultivation of man, that preference must belong to wheat. Throughout the whole of Europe, except the extreme north, in China, Asia minor, Syria, Persia; the north and south of Africa; almost the whole of North and South America, wheat is grown to a greater or less extent; nothing but extreme heat or extreme cold opposing effectual barriers to its cultivation.

The most permanent varieties of cultivated wheat are the red and white berried, and the spring wheat, the berry of which is usually red. "Winter wheat sown in the spring, will ripen in the following summer, though the produce of succeeding generations of spring-sown wheat is found to ripen better." (Ency. Amer.) We have doubts as to the entire correctness of this statement; as in several experiments which have fallen under our knowledge, winter wheat sown in the spring did not come to maturity. To ensure its ripening the first season, it appears necessary that germination should be commenced previous to sowing, as the period, if sown as spring wheat usually is, does not seem long enough for winter wheat to perfect the processes of growth and maturity. The remark that succeeding generations of spring sown wheat ripen better, is important and should be kept in mind by all who have attempted the growth of winter wheat, as spring wheat. Loudon says,—"In the cultivation of spring sown winter wheat, it is of importance to use the produce of spring sown grain as seed, as the crop of such grain ripens about a fortnight earlier than when the produce of the same wheat, winter sown, is employed as spring seed." By thus shortening the period required for its growth, in the course of a few generations, spring wheat is produced; and when the original winter wheat is of a good variety, the spring wheat will possess these qualities. If, as we are confident might be done, the white flint could thus be converted into a spring wheat, retaining its present flouring qualities, an incalculable benefit would result to the country.

The different varieties of wheat have a constant tendency to change, or deteriorate, owing to bad seed, improper soils, and crosses with other and perhaps inferior varieties and qualities. But this tendency can be counteracted, by choosing the best wheat, and that grown on soils the most congenial to the plant, for seed; and in this way any desirable variety may be kept good for any length of time. Within a few years several new varieties, the result of careful cultivation, but of superior qualities, have been introduced into England and this country. Varieties may be increased to any extent in the following manner: Select from a field of wheat a root, or a single spike, that possesses the qualities of straw, berry, color, weight, time of ripening, &c., desired. Select from these ears, or ear, the best size and proportioned kernels, and sow them in a soil suitable for wheat, and where the plants can be secure. When the produce of these is ripe, select the best ears and best grains, and sow on, until a bushel or two of the desired quality is obtained, which will be the second or third year. Sometimes excellent varieties are discovered accidentally, as the celebrated hedge wheat of England, the first ear of which was found growing in a hedge in Sussex; and the swamp or flint wheat of this country, which originated from a few ears found in a swamp near Rome in this state.

In few things are the chemist in his analysis of soils, and the farmer in the actual tilling the earth, better agreed, than in the kinds of soil best adapted to produce wheat. Rich clays, or those in which sand and lime are so blended as to resemble in its constituents marl, when properly combined with vegetable or animal matter, is found to be one of the best soils for wheat. Next to this, heavy loams, or those in which siliceous matter preponderates, but contains sufficient clay to make it retentive, when united with the proper proportions of nutritive vegetable, or animal matter, are the most productive. One of the best soils for wheat in England, analyzed by Davy, gave of carbonate of lime 28 parts; silica, 32 parts; clay or alumina, 29 parts; and animal or vegetable matter, 11 parts. Perhaps one of the surest tests in determining the qualities of a soil for wheat, or its fertility generally, is to ascertain its power of absorbing moisture. This may be known by drying finely pulverized earth at a temperature of 212°, and then exposing it to air saturated with moisture; and that which under the same circumstance acquires the most weight in a given time, by the absorption of water from the atmosphere, will be found the most fertile soil. Some soils treated in this way will in an hour gain 18 or 20 parts in a thousand; while others, and these are always barren or nearly so, will gain in the same time only from two to five parts. Perhaps the most fertile soils in the United States are those based on limestone strata, as the principal part of central Kentucky, and the lime-stone zone of Western New York; and these soils are noted for their powers of absorption.—Though the soil covering the rock may be but a few inches in depth, owing to this quality it rarely fails of proving fertile, and excellent for wheat. Experience, however, shows that wheat may be made to grow on most lands, unless the lightest and poorest sands be made an exception, but on soils not naturally favorable they must be made fit by preparation and manures. Where soils are too heavy, or contain too much clay, calcareous sand or gravel is one of the most efficient alteratives; and where it is too light and siliceous, the combination of marl is equally effectual.

In determining the best manure for wheat lands and the manner of its application, agricultural chemistry has done much for the farmer. In determining the food of plants, it was necessary to discover their constituents; what they obtained from the air and what from the earth; what their peculiar qualities were, and how their wants could be best supplied. In the analysis of wheat, it was found to contain in greater quantities than any other plant used for food, the peculiar principle of gluten, a substance nearly resembling some kinds of animal matter, and as this was an essential part of all good wheat, it became desirable to ascertain how this food for the wheat plant could be obtained. It was found by experiment, and from the nature of the chemical combinations, that gluten was the result of the action of lime on animal matters, and the natural inference was, that lime and animal manures would be the best for the cultivation of wheat, and the experience of farmers in this case, are supported by the united testimony of Chaptal, Thaer, Davy, and Grisenwaithe. Lime has become, by common consent, considered essential to the production of good wheat.—Heavy straw may be grown without it by the aid of other manures; but the berry will be defective, and the flour, owing to the absence of gluten cannot be made into good bread; it will be heavy and unwholesome. In soils then that are by nature destitute of this ingredient it must be supplied, and the quantity will vary according to the qualities of the lime, and the soil to which it is applied. An essential benefit will be derived from the small quantity that can be distributed by rolling seed wheat in lime, and no danger need be apprehended if the quantity reaches 50 or 100 bushels per acre. Lime in the soil is one of the most permanent manures, being inactive, except in its mechanical effect, unless brought in contact with animal or vegetable substances, in a state suited to chemical action and combination. Gypsum, or the union of lime with sulphuric acid, is considered by some a valuable manure or top dressing for wheat; but we think in most cases the most benefit is derived from this substance by its action on clover sown with wheat, and this application and union of crops is found to be one of the

surest methods of renovating or perpetuating the fertility of a soil.

In sowing wheat few or no cases exist in which the seed should not be prepared, and will not be decidedly benefitted by pickling. Pickling operates favorably in two ways,—it assists the germination, and it prevents smut. All men acquainted with wheat, or dealers in the article, will admit the necessity of guarding against smut; as there are but comparatively few fields in which it cannot be found more or less, and in the least quantity its pernicious effects are found in the discoloring the grain, and injuring it for flour or seed. Stale urine, from its containing considerable quantities of ammonia may be considered the best article for pickling wheat; but where this cannot be had a strong brine of common salt may be used. The more effectually this brining or pickling is performed, the better it will be for the wheat; and if the process is completed, as it invariably should be, by rolling the wheat when wet in fresh slacked lime, little danger is to be apprehended either of smut or of the eggs of insects on the berry. In a late number of the British Farmer's Magazine, a preparation of *arsenic with potash* is highly recommended as a pickle for wheat. It may, and undoubtedly would, be efficacious in the prevention of smut, as the small seeds of this fungus render it peculiarly liable to be acted upon by mineral poisons; but the dangerous nature of the substance, and the fact that a harmless substitute is found in lime, will, we think, prevent its general adoption.

The quantity of wheat sown on an acre, and the best method of sowing it, are points by no means settled among farmers. As to the first, the quantity, no definite quantity we think can be fixed upon, as the amount required will depend on the quality of the soil, the kind of wheat used, and the mode of sowing. Some wheat tillers or shoots more stems from a root than others, and a new variety has been advertised in England so remarkable for this quality that half a bushel is said to be sufficient for an acre of land. This might do, if the seeds were placed at propor distances, and all germinated, two conditions rarely or never found united. In England the quantity varies from 2½ to 4 bushels per acre. In this country from one bushel to two bushels are used. We have known an instance the present season in which 38 bushels were raised from one bushel sown on one acre.—In Europe, and particularly in Britain, drill sowing, was a few years since extensively practiced, and still is by many of the best farmers, such as Mr. Coke, of Holkham, now Earl Leicester. But the practice is declining in districts where it was once generally followed, and the broadcast system as used in this country is succeeding. In a favorable day, an experienced man will sow it with sufficient regularity in this way; and it is the general opinion, sanctioned it would seem by experience, that on soils where wheat was liable to be thrown out by freezing, ploughing in the seed with a slight furrow was preferrable to harrowing. The practice called *ribbing*, is recommended in the Ency. Brit and we have heard some farmers in this country speak of the plan with approbation. The land after being properly prepared, is thrown into ridges and furrows with the plough, to the depth and at the distance desired; the wheat is then sown broadcast in the usual manner, and the greater part will of course roll into the furrows; it is then finished with a light harrow across the furrows, and the grain will come up in rows with much regularity. This mothed allows the sun to reach the ground more effectually than in the usual way; but the comparative advantages of the two modes can only be determined by further experiment.

In this country, when the farmer has committed his seed wheat to the earth, he usually acts as though he had done *his* part, and trusts to Providence for the rest.—Trusting in Providence is very well; but what is called so, is nine times out of ten, so far as farming is concerned, trusting to chance for a crop; and we cannot help thinking that if in addition to this trust a little attention was paid to freeing the wheat crop while growing, from the weeds that so largely infest most of our farms, sensible benefits would result. That hand weeding the wheat should be carried in this country to the extent that it is in Britain, or Holland, cannot be expected, certainly not in the Northern States; the prices of labor, and the habits of our citizens render it impossible. In foreign countries the greater part of all such light field labor is performed by women; and a late visiter to Holkham, mentions having seen from fifty to one hundred females engaged at once on the crops. Such an occupation of American females is not desirable; their sphere of usefulness is elsewhere, and we trust the time is distant when such things will be tolerated, or necessary here. But we are of the opinion that the time of men and boys could for a few days be well employed in ridding the fields of stein krout, or other villainous weeds, that so frequently overtop the wheat plants, and exhaust the soil of the nutriment intended for them. That on many farms the crops are lessened from a fourth to a fifth in consequence of imperfect tillage, and foulness of the land cropped, does not admit of a doubt; and if additional labor is necessary to remedy this great evil, let it be employed, or no more land put under the plough than can be properly tilled and cleaned.

(Some remarks on the proper time of harvesting wheat, value and qualities of different varieties, diseases and enemies of wheat, &c., must be deferred to another number.)

RAISING CLOVER SEED.

In raising clover for seed, in order to procure a good crop, it is first requisite that the land be fertile; that it be well prepared before sowing; and that a sufficient quantity be sown to yield a full and even crop.

The second and most difficult object to attain, is to secure the crop when ripe, so as to save the largest portion possible of the seed. To do this, it must be cut at a proper season. As the seed ripen at different periods, if the crop is cut too soon, there will be a loss sustained from the immaturity of the seed. If cut too late, those seed first ripe will be liable to be entirely lost by being shattered off in the field. Hence there is a certain medium to be observed, to prevent these two evils, which is, to cut the crop when about two thirds of the heads have become black; a large portion of the remainder will ripen by the nourishment they obtain from the straw during the drying process. Where the clover is not lodged, it is much the best to cut it with a cradle, laying all of it in double swaths; and securing the heads from falling through the fingers of the cradle by stitching a piece of linen cloth upon them.

After the crop is cut, it must be suffered to remain in the field long enough to become dry; this, if the weather is good, will be in very few days. It must then, when the dew is upon it, be raked into small bunches, (such as would be a convenient load for a fork,) and when sufficiently dry, placed carefully upon a sled or wagon, and drawn into the barn. If the weather is unfavorable, it becomes necessary to turn these bunches repeatedly, to prevent their being injured by the moisture. Indeed, this should be done even in fair weather, if they remain out longer than two or three days. When drawn into the barn, the crop may be either stowed away in mows, or else thrashed out immediately, and the heads and chaff placed in a room for the purpose, for ultimate cleaning. This may most generally be done best in winter.

If farmers could always raise their own seed, and in sufficient abundance, it would be much better to sow it in the chaff, as it is generally found to be more certain to grow. The only advantages of cleaning are, the more exact determination of the *quantity* to be sown, and the more equal distribution of the seed; and where it is raised for sale cleaning is of course requisite. When sown in chaff, the difficulty with regard to quantity and distribution may be obviated by sowing sufficient to insure the desired thickness on every part of the ground.

By far the best method of cleaning is by means of a machine; but as this is not always to be had, the practice of treading it out by horses is then to be resorted to, though it is tedious and unpleasant. It is thus performed. The barn floor is covered with chaff about a foot in thickness, and the horses are driven upon it one day. The next morning it is to be passed through a fanning mill, and the chaff and dust which has been beaten off will be blown away; the clean seed will pass through the screen; while a third, and larger portion, containing the seed yet in the chaff, will drop in the rear of the fanning mill. This is to be spread a second time upon the floor, mixed with a fresh portion of unseparated chaff, and again trodden by the horses; the second morning repeat the same operation, and a much larger portion of clean seed will be obtained. The operation is thus to be repeated, unril the whole of the chaff is separated.

In order to clean the seed properly for market, it is necessary first to run it through a sieve of just such a degree of fineness as to permit the clover seed to pass through, but retain all large substances. It must then be passed through a sieve just fine enough to retain the clover seed, but to suffer all smaller seeds to pass through. In this way it is effectually cleaned.

By proper attention and care, three or four bushels may be easily obtained from an acre of land. J. J. T.

LEGISLATIVE AID TO AGRICULTURE.

That agriculture may receive important aid from judicious legislative action—that the great producing class may fairly and reasonably claim to have their wishes heard, and their rights regarded—that the time for such action has arrived—and that the interests of the state imperiously demand aid of this kind, appears to be generally admitted by all who are competent to an enlarged view of our social and financial condition. Two facts will place this necessity and obligation beyond cavil or dispute: during the last year our exports of bread stuffs were only four millions, and our imports were four and a half millions; and of the 23 or 25 millions of produce forwarded on the canal in the same time, four-fifths or more were the produce of agricultural labor. Agriculture has built and paid for the public works of the state, and now finds them with employment; agriculture pays the tolls, and replenishes the treasury; agriculture lies at the foundation of state or national prosperity; it is the base of the social compact, and the grand agent of civilization and improvement; and surely it is not too much to suppose that the voice of an interest so vitally important will be listened to with deference, and its just claims at once awarded.

There seems, however, to be some little difference of opinion, as to the best means of effecting the desired end, the improvement of agriculture. Some have contended for a grand central establishment, or agricultural school, endowed and put in operation by the state, and the efforts of individuals. Others have proposed a general law authorizing the formation of similar societies, by any number of individuals, in any place, that choose to associate for the purpose, and authorizing such company to hold real and personal estate to a certain amount—said property to be employed in an experimental farm and its necessary appendages. Others have advocated the revival of the former agricultural law of the state, with such modifications and improvements as experience and the advance in agricultural knowledge may have suggested.

Much was at one time hoped from the formation of the State Agricultural Society some four or five years since, and the consequent authorization of an Agricultural School on the most liberal scale. The Society however have effected comparatively nothing. The gentlemen employed as directors of the chartered agricultural school company, though men of experience and talent, have been unable to enlist public feeling at all in the measure, and nothing in furtherance of the design has as yet been accomplished. The idea of a general law embracing all such associations, is a comparatively new project; but we think if it can be made to embrace the two essential points of annual shows and premiums, that it promises more substantial benefits than the former. Our present

impression however is, as it always has been, decidedly in favor of county societies, based on the plan of those formerly in existence, but with the evils which were found to belong to those, evils the result of inexperience, corrected by the lights of the age, and done away by a more perfect organization. If any thing is firmly established in the history of agricultural associations, next to the certainty of their beneficial influence, is the fact, that *without annual shows and premiums, they cannot exist.* The experience of England and Scotland is decisive on this point; their Societies are universally of this kind, and they are so well satisfied of the futility of attempting to sustain one on any other ground, that the effort is now never made. The experience of the New England societies, that have been the means of so much benefit to its agriculture, and such an honor to the states and individuals that sustain them, owe their existence and usefulness to this same system of shows and premiums. The beneficial effects of our former societies have not yet ceased to be felt; and there is no doubt whatever that the money paid from the treasury of the state increased the wealth of the state, at the rate of millions for every thousand.

For ourselves we care little about the particular mode in which the agricultural community, and indirectly through them, all others are benefited; but we are confident no one will meet their genaral approval and cordial support, that does not embrace, what we consider the two fundamental points in all such associations—shows and premiums.

Our object in alluding to this subject at this time, is to call the attention of our agricultural friends, and the farming interest generally, throughout the state, to it, as the time for legislative action has now arrived, and a free and full interchange of opinions should be effected, that if possible unity of action, and energy of appeal, may lead to the desired result of suitable appropriations in the form that the *farmers themselves* shall deem most proper and beneficial. We invite communications on this subject; since we are assured that nothing is wanting but concert of action among those most interested to prodoce the desired effect; the legislature will, we are confident, gladly respond to the wishes of the community, whenever they shall be clearly made known.

Dr. Muse's Dorchester Address.

We have received from the author, Dr. Joseph H. Muse, an address delivered before the Dorchester Ag. So. in Nov. 1837. The address is able and interesting, and if the spirit of enterprise, and agricultural experiment, so worthily shown by the writer, are seconded by the farmers and influential men of that section of country, we are confident that the Eastern Shore of Maryland will ere long cease to complain of the necessity that drives her sons to the more fertile and easily cultivated regions of the west. His remarks on the necessity and advantages of science in agriculture; on the benefits that have resulted from the studies of chemistry and geology; and the utility of a competent knowledge of botany and entomology, are justly conceived and forcibly expressed. His opinions on these topics are such as we have frequently endeavored to enforce in this journal; and we are confident the result of correct principles and well digested notions on the subject of farming, would be their entire adoption.

On some subjects, however, we must beg leave to dissent from our author, not with any captious feelings, but because we imagine in some instances he is mistaken both in his premises and inferences; and because, were his sentiments to be generally received, the injury to the country, would be, in our opinion, incalculable.

Dr. Muse is, we perceive, an advocate for the doctrine of the transmutation of wheat into chess. This subject, has, we believe, been mostly set at rest, in the minds of those who have read the former volumes of this journal, and considered the variety of experiments recorded, and which have been elicited by the chess controversy within a few years. Mr. Muse has adduced no new arguments in favor of the possibility of such an event; he only quotes the assertion of Mr. Featherstonhaugh, geologist, "that he had seen stalks of chess developed from a grain of wheat, under the most infallible circumstances." What those were he does not state, and on this question, circumstances have been so often pronounced infallible, that on a close examination proved quite hypothetical, that we are reduced to the necessity of becoming unbelievers in infallibility so far as the production of chess from wheat is concerned. Dr. Muse says—"the famed Lamarck quotes many examples of the changes of plants in their *forms, faculties,* and even *organization,* by a change of the physical circumstances in which they are placed. * * * Some are made to lose their thorns; some the *acridness* of their *juices;* others have their *ligneous* converted into *herbaceous* stems; and some which are *perennials* become *annuals;* an unfavorable climate, exposure to winds, and other accidental causes, may give rise to a *stunted* and *altered race.*"

We might remark in reply, that Lamarck, too, believes that *man* sprung from a *monad,* a single atom of organized animated nature, and by progressive improvement has arrived at his present state of superiority; but this is too absurd to find many advocates. No matter how man originated, had that speculative philosopher shown us an example of *man as he is,* changing to another species of animal, a horse, cameleopard, or even monkey, for instance, he would have done more for the believers in the transmutation of wheat into chess, than has ever yet been achieved. Nobody doubts or disputes the changes which climate, and 'accidental causes' may make in any *variety* of plant; all that Dr. Muse has given from Lamarck may be allowed, and yet no legitimate inference follow, that the different *species* of animals, or plants, are convertible into each other. Owing to climate, the *wool* of a sheep may change to *hair,* for they are varieties of the same thing, but who ever knew a sheep change to a calf or a dog? Wheat may assume the forms of bearded, bald, white or red, winter or spring, and be convertible from one to the other, by climate or accidental causes, but these are not sufficient to convert it into oats, barley, corn, or, as we believe, into chess.

If possible, we differ from Dr. Muse still more decidedly in the cause which he assigns for the partial failure of our wheat crops for a few years, and the consequences he deduces from that fact. From the fact that fossil remains of living species, are found in Siberia, such as the elephant, lion, fern, and palm, but which are now only natives of the torrid zone, he infers the *gradual* but *constant* diminution of the temperature of the globe. That great changes have taken place on the earth, since these animals inhabited the regions where their remains are found, none dispute; that the cause of their extermination was *gradual,* or in *continued* operation, few would admit. "To this gradual, but continued lowering of the temperature of the globe, may be inferred the failure of our wheat crops; and hence may be seen the necessity to supply the loss by others, adapted to the *new physical* condition of the *country.*" * * * "It is deducible from causes, obviously still in operation, that a comparatively short period, perhaps half a century, or a little more, will find the wheat plant flourishing only in the most southern sections of our vast empire; and *another period* still longer, may in all probability, *cancel* it from the catalogue of vegetable life." Dr. Muse is, we think mistaken in his premises, and if we can show that such is the case, his inferences will fall to the ground of themselves. We are the more anxious to do this, as we are unwilling to suppose that our children are to be deprived of the luxury of wheat bread, or that fifty years hence, in the middle or northern states the wheat plant will be viewed as an exotic, and cultivated in hot houses for show.

In the first place, Laplace has demonstrated that the bulk or gravity of the earth has not diminished in the least in 2000 years. This, as he has shown, could not have been the case, had the temperature diminished in that period in the least. The nicest observations show that the mean revolution of the earth has not varied the hundreth part of a second in the above period of time, and this alone demonstrates that the mean gravity and temperature have not sensibly changed in that time.*

In the second place there is no proof whatever, that can be relied on, that any permanent change of climate has been effected in any country, since the authentic record of events on the globe has commenced. Wherever wheat or barley, or corn, have been grown, they can, unless influenced by local and temporary causes, be grown still; on the plains of Mesopotamia, on the steppes of Tartary, on the hills of Palestine, on the rich alluvion of Egypt, we know these grains have been grown for more than three thousand years, and spite of the desolating effects of war, and the mutations of time and empires, are grown there still; and where the soil is properly cultivated, with as great productiveness as ever. Climate has remained unchanged, and there is every probability that wheat and barley will still grow in these cradles of empire and the human race while time lasts. The longest continued thermometrical observations, also prove that there has been no permanent decrease of temperature. Some years, perhaps a few in succession, exhibit a lower mean; but this depression is never permanent; on the contrary nature remains true to the laws impressed by the Creator, and these trifling oscillations do not in the least affect the general result.

Does our own country afford any proof of 'gradual but continued' decrease of temperature? We think it easy to prove it does not. There is the most ample evidence that at the settlement of New England and Virginia, the climate was not materially different from what it now is. Years favorable and unfavorable to the cultivation of grain and corn, have existed and may continue occasionally to exist, but the general temperature of the years, is unchanged. Thermometrical observations at our colleges, make this certain. The record of the late Dr. Holyoke was the most accurate, full, and long continued of any individual in this country, and perhaps in any other, reaching nearly sixty years; more than will be required according to Dr. Muse, to push the wheat plant from the northern and middle states, and nearly exterminate it from the union;—yet that is decisive on the point that no decrease of temperature has taken place.

And what are the facts in regard to the production of wheat in the Northern States? We do not believe that in any single year, in thirty years, has there so much wheat been produced in New England, as in 1837. In Maine the product was trebbled, and elsewhere much increased. Dutchess, raises twice the wheat now it did 40 years since, when the inhabitants contended that the soil was exhausted, that wheat could not be grown; and lands were considered hardly worth the taxes. The 'continual' decrease in the temperature of the globe had not then been promulgated to any extent, or the Dutchess farmers would have laid the results of their unskilful farming to that convenient cause. Every man acquainted with the history of farming in this country, knows that newly cleared lands in the N. E. states, will produce as liberal crops of wheat, now, as ever. He knows too the exhausting and unskilful process to which the defective old fashioned system condemned such lands, and he is not surprised that such causes should have produced such effects. The fact, that the exhausted and impoverished soils of N. England, and the southeastern counties of this state, have, by an improved system been enriched, and made more productive of wheat than ever, is sufficient of itself to exonerate the climate from any blame in the matter.

The whole history of agriculture, and particularly that part relating to the growth and diffusion of the wheat plant, is a perpetual refutation of the inadmissible, we do not say "absurd," deductions of Dr. Muse. We know that wheat has been cultivated in the north of Germany, on the southern shores of the Baltic, and in Britain, for more than 2000 years; and if any fact in agricultural history is certain, it is, that the crops of this grain were never finer and more abundant, and the climate more favorable to its growth in these countries, than at present.

There is another point in which we are compelled to differ from the author of the address, and that is in the estimate he puts upon the turnep. Dr. Muse says,—"The '*turnep,*' the '*ruta baga,*' and *all its harieties,* though its introduction into England is said to have made a memorable era in the agriculture of that country, I hold to be the most *worthless* of the cultivated roots—its fibers are chiefly *ligneous*—its juices *aqueous;*—without meaning any disrespect to its numerous eulogists, I might fitly and technically term it 'a simple *hydrate of wood.*' It may answer the mechanical purpose of filling the stomach, and enabling it to grapple with the nutritive matters received in it, and but little else. One of the best analysts in England, Sir Humphrey Davy, reports the common turnep to contain only 42 parts of soluble or nutritive matter, in 1000—and the ruta baga but little more."

This is one of the prettiest specimens of off-hand agricultural criticism, we have ever met with. Turneps are left by it, very much in the predicament of the cabbages, after the valorous onslaught of the redoubtable Governor Stuyvesant. In the depth of our ignorance, we had supposed, after reading in the best agricultural and statistical works of England, that the turnep culture had increased the productive wealth derived from the soil not less than sixty millions annually—that such men as Tull, Bakewell, and Coke, had practiced and recommended the culture, and that the two last, as well as thousands of others, had grown rich by its adoption—that last year at Holkham five hundred acres of turneps were raised to be followed by five hundred acres of wheat—that the ave.

---

* Geology furnishes no evidence that the slightest change has taken place in the temperature of the globe, since the creation of man. The changes that preceded and fitted it for his residence, were undoubtedly great, and resulted in the extinction of many species, and circumscribing the limits of others. Could it be proved that the fossil remains of the animals alluded to by Dr. Muse belonged to individuals cotemporary with man, a more plausible argument would be afforded in favor of his position, than has ever yet been adduced. The fact, however, that among all the fossil remains yet discovered, whether in Siberia, Britain, or elsewhere, not a fragment of the human race has been detected, may be considered as demonstrative evidence, that at the period in which these animals lived, man was not, and that the changes of temperature, and other causes, that proved their extermination, ceased to exist before he was placed on the globe.

rage crop of wheat on the turnep lands in England, had been increased 100 per cent. by the culture—that the quantity of beef and mutton, and the means of fattening these animals, had increased in about the same ratio—when we knew that in this country the turnep had been fairly tested, and proved by the almost unanimous testimony of our best agriculturists to be worthy of its foreign reputation—and finally, after having ourselves had ample experience of its value in feeding and fattening; we say, knowing all this, we had supposed the turnep, all things considered, instead of being the most "worthless," was one of the most valuable of our cultivated roots.

We admire the science of chemistry for the valuable truths it has made known in connection with agriculture, and we expect much more from its successful pursuit; but we must say, that in forming our estimate of the practical value of any plant, or process in farming, we would much rather rely on the testimony of such men as Bakewell, Coke, Cully, &c. in England; and Thomas, Coleman, Powell and others in this; than on mere theoretical deductions of men, however eminent in the laboratory, especially when these deductions are founded on premises which they themselves acknowledge are but very imperfectly established or understood. Can any philosopher, can Dr. Muse himself, tell us how much nutriment is actually required to produce the best effects on the stomach of a man or an animal? Can they prove that the quantity actually required is not found exactly proportioned to the "filling of the stomach" in the turnep? We do not assert that this is the case; we only say, that where the practical results of a process are, as in this case, directly adverse to the closet abstractions of the philosopher, we prefer practice to theory; and in this Dr. Muse will, we believe, agree with us.

We have noticed, what we have considered, these errors of Dr. Muse, in his address, more at length than we are in the habit of doing, because we consider them—certainly the two last—calculated to do extensive injury wherever adopted; and because the skill shown, and talent displayed in it, is well adapted to give it an extensive circulation, independent of the means adopted by the committee of publication. If the opinions here inculcated, viz: that fifty years is to see the wheat plant banished from all the States, except the extreme south, and as a necessary consequence, that the culture of cotton must be much earlier wholly done away in the South, prevail extensively on the eastern or western shore of Maryland, we do not wonder that farmers there are running away, as the Doctor asserts they are, from a country so soon to be swept with the *icy* bosom of destruction. If the Doctor himself believes, that his children, by remaining where they are, will in fifty years be compelled to resort to the barley bannock, oatmeal cake, reindeer moss, or pine bark bread, which mark the degrees, and constitute the food, in those latitudes where wheat and corn cannot be grown, we wonder he does not emigrate to Texas forthwith: or seek in the tropics a longer reprieve from the calamity that is slowly, yet surely, advancing to overwhelm them. Modern prophets should place the fulfillment of their predictions at so distant a period as not to be compelled to witness, in their own persons, the entire falsity of their vaticinations; an event we trust we may, and not to his sorrow, fairly anticipate for the able and respected author of this address, whom we hope to meet again with less gloomy forebodings for the future, but with the same friendly feelings toward agriculture, and the same taste and talent in advocating its interests he has now shown.

NOTICES.

INQUIRIES.—We publish to-day a communication from "SOUTH-HILL," a writer whom we take much pleasure in welcoming to the pages of the Farmer, asking information on several subjects of general interest to agriculturists as well as to the inquirer himself, to which we invite the attention of our readers, in the hope that many of them will favor us with answers to the queries proposed. If the half of those who are capable of imparting information on the subjects referred to, would communicate their knowledge to the Farmer, a mass of valuable information would be gained, which would prove beneficial in a greater or less degree to all the readers of this paper.

N. E. FARMER.—J. Breck & Co., the publishers, announce that they have made arrangements with the Rev. HENRY COLMAN, to assist them in the editorial department of that paper. Under the management of Messrs. Coleman and Brock it cannot fail to sustain the high character it had attained under the supervision of the late T. G. Fessenden.

OHIO FARMER.—A. S. CHEW, Esq. of Columbus, has taken the editorial chair of this paper; and if we may judge from his first appearance, it will take a high rank among the Agricultural journals of our country. The number before us is made up in better style than any paper we have seen, being arranged under different and appropriate heads.

COMMUNICATIONS.

AGRICULTURE AS A PURSUIT,

A SURE ROAD TO COMPETENCE, INDEPENDENCE AND COMFORT—NO. I.

Accustomed from early childhood, more or less, to pursuits connected with agriculture—a lover of the science, though not by profession an agriculturist—and convinced of its importance to the prosperity of a country, and to the well being and happiness of mankind, it has ever been my wish to do what I could to advance its interests. It is not my privilege, from much experimental knowledge in its various branches, to contribute much to its improvement; to abler pens, who have long devoted their time and attention to both the theory and the practice—who have brought to bear upon it the resources of mind enriched with various useful knowledge and science, I leave this—to the practical and scientific farmer, who have it in their power greatly to advance its improvement, by communicating the results of their experience. And happily, many such men we have in our country, who are thus engaged in subserving the best interests of society, with a generous and noble disinterestedness. Discarding then all pretentions of an instructor of others in the details of farming, I may be permitted nevertheless to present a few remarks and suggestions, the result of my own observation and reflection, *on agriculture as a pursuit*.

In the present number, I shall endeavor to show the truth of the proposition, that *agriculture is a sure road to competence, independence and comfort*—surer than that of almost any other profession.

This is forced upon my conviction by a long and attentive observation, and comparison of the different branches of business—the different professions of life; and is most strikingly verified by the events of the past year, and the present situation of our country. Who are they that have suffered shipwreck of their fortunes, or extreme embarrassment and distress, in the disastrous reverses of the commercial world, and the derangement of the general business of the country? Is it the cultivators of the soil? No—it is the merchant, the speculator, the manufacturer. On whom does the pressure of the times bear hardest? On the farmer? No—the soil he tills generously repays his labor; it yields him the necessaries and comforts of life; he has enough to eat and drink; and can find a ready market, at a good price, for all the food he has to spare; while penury and want are staring others in the face, or inflicting on them present suffering and distress; and these, too, not solely the rash adventurer, the improvident and the idle, but the industrious and prudent, the mechanic and the day laborer, who are dependent upon others for a livelihood, while the farmer, for his, looks alone to the ground he tills. And though he, in common with others, feels the pressure of the times, in the scarcity of money, and the interruption of the market for some of the products of his labor, yet, if he is not in debt, (and I assume that no prudent farmer should be,) he, if any one, can weather the storm; for with health and industry, his own hands can supply his wants from the productions of the soil; his resources are within himself; he enjoys an independence which others may well envy. The reverses of business and trade—the fluctuations of the money market, affect him but little; unmoved he pursues his tranquil course of labor, amid the scenes of rural quiet, depending upon that beneficent Providence for a blessing on his toil, who causes the earth to bring forth its fruit, and has promised that "seed time and harvest shall never fail;" *independent of others, while all others are dependent on him.* Yes, so true it is that all, both high and low, rich and poor, are dependent upon the farmer for the bread that sustains them.

That the cultivation of the soil is a *sure* road to competence, independence and comfort, is demonstrated from the fact, that there is no class of men in our country, take them as a body, more thrifty and prosperous, with every appearance of worldly comfort, than our farmers. Look around, and then say if it is not so. Generally speaking, they may be said to be *well off*, above want and embarrassment, and many of them perfectly independent and easy in their circumstances. Their progress in the road to independence and wealth, it is true, has been slow but *sure*. They have been content to rise gradually by the fruits of their own industry, while others, in branches of business in which property may be accumulated more rapidly, by the ever changing vicissitudes of trade and other fortuitous circumstances, have been making and breaking around them—to-day rich in their own estimation, and in the estimation of the world, wielding their thousands—to-morrow poor and almost pennyless. A few years of patient toil and industry, economy and prudence, in a climate propitious and with a soil fertile as ours, are sufficient to produce this prosperous state. In the nature of things it must be so, as long as the earth continues to yield her increase. And where this is not the result, the failures may generally be traced to *indolence, bad management, a lack of prudence and economy, intemperance, or some other defect.*

God has ordained that man should labor for his sustenance, and crowns that labor with his blessing. In the very curse pronounced upon him for his disobedience, "In the sweat of thy face shalt thou eat bread," there is contained the promise that he shall have bread to eat; a sufficiency of the necessaries and comforts of life, if he but labor. This is peculiarly true of that labor which consists in the cultivation of the soil. It will assuredly produce competency, and ultimately independence and wealth; nay, it is the basis of the wealth and prosperity of a country. In proportion as a country advances in agricultural improvement, and increases the productions of the soil, does it increase its resources, its ability to sustain a large population, and to afford to every branch of industry and enterprise a profitable employment. The agriculturist, by the exchange of the surplus products of the soil, gives to commerce its enterpise and success; and while he affords to others the means of becoming rich, is enriched himself. Thus, like the blood which, circulating through the veins, carries the aliment which nourishes and supports every part of the body, giving vitality, health and strength to the whole body, does agriculture, sending its rich supplies through the various channels of commerce and trade, affording the very aliment of life and the means of increasing and augmenting our comforts, give support, and vitality, and health, and strength, to the whole body politic.

That competence, independence and comfort, so far as happiness is to be derived from a sufficiency of this world's goods, and from a comparative freedom from vexing care and anxiety, are the sure result of a patient cultivation of the soil, must be apparent from a few moments' reflection upon the following facts: All must have the necessaries of life; all must be fed and be clothed; and for this, all must look to the productions of the earth. But it is not necessary that all should become agriculturists, for the earth is so productive that an ordinary soil, with proper tillage, brings forth more than is necessary for the sustenance of them who cultivate it. For the comfort and well being of society, there must be other branches of industry and pursuit; there must be mechanics, manufacturers, traders and professional men—and these must all be supplied with the necessaries of life by the cultivators of the soil. By them the manufacturer must be furnished not only with provisions for his numerous operatives, but with some of the materials he works up—the cotton, the wool, the silk, &c. which enters into his fabrics. Now these classes in every country, congregated in the cities, towns and villages, or engaged in commerce on our seas, lakes, rivers and canals, compose a large majority of the community. The producers bear but a small proportion in number to the consumers. Hence so long as men must eat, and drink, and be clothed, there ever will be, as there ever has been, a demand and a market for all the surplus productions the farmer can raise; his produce, his beef and pork, &c., and the raw materials which grow from the soil, necessary for our manufactures, and at a price too generally which will reward him for his toil. Hence, with no burthensome taxes to consume the hard earnings of his labor, (and here we have none,) with health, industry, economy and perseverance, he may be sure of competence, a sufficiency of this world's goods, for his comfort and happiness for himself and family, and some to spare in charity to the needy, and in purposes of benevolence to his fellow men.

With these undeniable facts before us, it may seem strange that so few devote themselves to the cultivation of the ground—that so many eagerly engage in pursuits far less *sure* to afford a comfortable support, and a desirable amount of property. There is a passion in the many to become merchants, tradesmen, professional men, &c., till almost every profession and branch of business in our country is overstocked, except that of farming; and there cannot be raised a sufficiency of breadstuffs for the consumption of our population, but we must resort to foreign importations.

This state of things in our country results mainly from two causes: *first, an indisposition to labor; second, an eager thirst suddenly to get rich.* To cultivate the soil requires labor, and many are indisposed to this from a *natural indolence of disposition*, or in a plainer and more homely word, *laziness;* and many from an idea that to labor with the hands is dishonorable; they associate it in their minds with what is low and servile, and hence are apt to consider the humble calling of the farmer as beneath them. In this they are greatly mistaken; for it is not dishonorable in any to labor for an honest livelihood; and there is no profession whatever more honorable, or which numbers in its ranks more illustrious examples of intelligence and worth. Men of the best standing in community, and of the highest order of intellect, have not thought the pursuits of agriculture beneath their attention, or themselves disgraced by engaging in its labors with their hands. It is a foolish pride, a false sense of honor and dignity, the indications of a little mind, which lead them to despise labor, and feel themselves so much above the plain and home-clad cultivators of the soil; whereas in real worth and usefulness the latter are

far above them. As for the other class, who dislike to work from an indolent disposition, and therefore engage not in agriculture, *the drones* of society, a little manual labor would do them no harm; it would undoubtedly conduce both to their health and happiness, to pull off their coats and go to work, following the plough, swinging the axe and the scythe; no exercise more healthful—none better calculated to drive away that ennui, or those corroding cares and anxieties about the future with which they are often afflicted.

In regard to the last class, who are eager to become rich at once, farming is too slow a process for them. They are not contented with its gradually increasing, but sure and permanent gains, like the *rivulet*, which winds its way and pursues its noiseless tenor along the humble vale, fertilizing as it goes, and gradually increasing as it receives its tributary rills from every side, till at last it swells into the broad stream or the expanded pool, deep and permanent; but with them, "the golden stream" must be quick and violent, like the mountain flood which is suddenly swelled by the melting snows or the descending rains, overflowing its banks, and carrying oftentimes destruction in its course, but which is dried up soon by the exhaustion of its supplies. They must embark in hazardous enterprises, in the many wild speculations of the day—must play a bold and desperate game; they stake perhaps their all, nay more—the property and hard earnings of their friends, if they can borrow their credit; and with the chances often greatly against them, there is no marvel if they lose their all and involve themselves and friends in ruin. Had a just proportion of our coummunity been engaged in cultivating the soil, should we have witnessed the disastrous revulsions in trade and commerce which we now do? I think not. And until more engage in it, and become *producers* and not *consumers merely*, we cannot hope for a return of a vigorous and healthy state of action in the body politic.

But I must close, as I have already exceeded the limits I proposed to myself in this number. Happy shall I be if these remarks contribute in the least to make the farmer contented with his profession, and encourage him to perseverance in his labors, or induce others to turn their attention to the cultivation of the soil, the common source, under a bountiful Providence, of all our wealth and comforts—of individual and national prosperity.

Hammondsport, Dec. 18, 1837. W. W. B.

ENQUIRIES.

Pump Logs.—It is my intention, next season, to conduct the water from a distant spring to my house and barns, by means of pump-logs. I have decided against *lead pipe*, because it would be difficult to get that of sufficient size to discharge the waters of the spring, which is a very large one. The varieties of wood from which I can select, with no great trouble or expense, are hemlock, basswood, chesnut, and pine,—though the two latter would be the most difficult to be obtained. Now the question I wish to ask is, 'which of these kinds of wood is the best, for the purpose I have named?' My enquiries among my neighbors have elicited any thing but a uniformity of opinion. One thought pine poles would be the most durable. Another informed me that in repairing some old conductors, laid originally with pine poles, and basswood split from large trees, that the pine was found invariably the most decayed. He thought that logs sawed or split from large trees of any kind of wood, would be more durable than poles of the same. Some in this vicinity have laid down chesnut poles, and think favorably of them. Basswood from its cheapness, and the ease with which it is obtained, has always been much used. Hemlock poles (from eight inches to a foot in diameter) have also been very generally used, and many give them a decided preference over all others. But no one has, that I am aware of, instituted an experiment to ascertain the *comparative* durability of each of these kinds of wood. If there is any one among your readers who has made, or been conversant with such an experiment, he would do me, and I doubt not many others, a great favor by communicating the result. Perhaps you, Mr. Editor, can give the requisite information.

Cobble stone Wall.—Although cobble stones have been considerably used in many parts of the country in the erection of buildings, *here* their application to such a purpose is entirely new,—two or three buildings only having been constructed of them, and those during the present season. But if they will make a permanent wall, it is high time they were more resorted to for that purpose, for their extreme plenty here, would render them far cheaper than brick or flat stone—almost as cheap as wood, in the erection of dwelling houses. What would look better, and *be* better, on our farms than stables, turnip-houses, piggeries, etc. constructed of a material which would not perish in ages, and which could be obtained and put up at an expense within the reach of almost every independent farmer! The stone must be picked up at all events, and we might as well put them together for a building, as to cart them to some pit, or into the road,—and we might as well employ them in some useful purpose, as to throw them away. But *will* these walls stand?—and, if so, how are they constructed? Will some one who feels qualified to do it, answer these questions—giving the proper proportions of the *mortar*, and such other details as would be useful and interesting to those entirely unacquainted with the subject.

"Swelled neck" in Lambs.—Great numbers of lambs, for the last two or three years, have been yeaned with a peculiar enlargement of the thymus g and—the swellings varying from the size of a walnut to that of a hen's egg. The lambs are oftentimes large and plump, but die almost as soon as they are yeaned. In many, perhaps a majority of cases, their lungs are never filled with air. During the last spring, this disease or malformation (I know not which it should be termed) was peculiarly frequent. In some instances the produce of whole flocks was cut off. Mr. R——h of Butternuts lost every lamb of his South Down flock but *three!* Others in the same section of country suffered considerably. In 1836, a gentleman of Vernon had over *fifty* lambs born with this enlargement of the glands. Similar cases have been frequent every where, where my knowlege has extended. Are we to look upon this as an epidemic, the causes of which, like those of the epidemics which scourge mankind, can only be vaguely and generally assigned, (and this too without pretending to decide why they operate at this or that particular time,) or can we identify its causes, and trace them to our own mismanagement? I incline to the latter opinion. In the cases which have come under my observation, the sheep while with lamb, were kept in *very high condition*. I never knew a poor sheep, or one in *ordinary* condition, to produce a lamb affected with "swelled neck," as it is popularly called. Nevertheless this may not be the cause. Some have attributed it to the water drank by the sheep. If every one whose flocks have suffered in this way, would state the accompanying circumstances—the feed and condition of the sheep—the water drank by them—and such other facts as might be supposed to have a bearing on the case, the sources of this fatal and *increasing* disorder might be discovered, and perhaps *cut off*.

Chesnut Timber.—Chesnut grows so rapidly, that it strikes me in a country where fencing timber is daily growing scarcer—and soon will be almost entirely gone—that its cultivation should be resorted to, to supply our farms with the materials of future fences. Stone cannot always be had, and hedges I fear will never succeed fully in this stern climate. Every few winters, we have one of sufficient intensity to destroy many of the varieties of trees and shrubs employed in hedges, and whenever a large body of snow falls in early winter, before the ground is much frozen, the mice are liable to do great damage to young trees, where they stand sufficiently close together to collect and detain leaves, &c. about their roots in autumn. The mice burrow under the leaves, and under cover of the snow strip the trees of their bark. The same thing *might* happen to a grove of young trees planted for fences, but the danger would be less. Last winter the mice did much damage in some parts of this county. I do not exaggerate when I say, that I saw acres of underwood girdled by these little destroyers,—and I noticed uniformly that they worked most in those close thick copses (caused by fire running through the forest,) where they were sheltered best in autumn. Chesnut trees would not be large enough to cut, probably, under twenty-five or thirty years. To many this would seem a long time to wait for the returns of an investment, and so it is. *We* may "moulder cold and low," but the fruits of our labors will bloom on. The wise man, the good man, the philanthropic man, labors not only for himself, but for posterity. Besides, we *may* live to enjoy our labors—and that too, for a goodly number of years! Many a man of fifty, can now look back and say, '*if* twenty-five years ago I had planted a grove of chesnuts, my farm would *now* be worth double what it is, but I thought it too long to wait.' What is the best and cheapest method of forming these plantations? Should they be cultivated in a seed bed, and afterwards transplanted, or planted in the first place where they are intended to grow? What is the process of after cultivation?

Birds.—What has become of the Martins—those gay little songsters who were wont to cliven our summer mornings and evenings? For two years their tiny palaces on sign-post, roof and tree, have been desolate. A solitary flock or two have come each spring and peered into their former habitation, and then departed. This is a curious fact in ornithology, and one which I have heard no one attempt to explain. Can "D. T." (whose ornithological sketches in the Farmer, a few years since, were so much read and admired, and the suspension of which was so much regretted by the lovers of this beautiful science) throw any light on the subject? Was the desertion of the Martins confined to this place, or was it general throughout the country? Speaking of D. T. cal's to mind many of the

Former Correspondents of the Genesee Farmer.—Where are they? Has D. T. forgot that the young *have a right* to look to their seniors for instruction and profit? Where is "Ulmus"—the vigorous, versatile, and always interesting Ulmus? Has politics engrossed all his faculties? Where is "R." so profoundly skilled—perhaps beyond almost any other man in the state—in every thing relating to domestic animals? I might swell the catalogue of delinquents—for *delinquents* they are, when, impelled by no *necessity*, they withhold their efforts in the cause of agriculture. This state of things ought not to be.

Cortlandville, Dec. 23*d.* South-Hill.

LEGISLATIVE AID TO AGRICULTURE.

SKANEATELES AGRICULTURAL SOCIETY.

At a numerous meeting of the Skaneateles Agricultural Society, it was unanimously Resolved, that the cordial thanks of the Society be presented to Judge Bradley for his able and interesting communication, and that he be solicited to permit its publication in the Skaneateles Columbian and Genesee Farmer, to which request he politely assented. Chester Moses, *Sec'y.*

To the President, other Officers and Members of the Skaneateles Agricultural Society.

Gentlemen—Mindful of the honor you have done me, by making me an honorary member of your society—Mindful too of your request, respectfully communicated by your committee, that I should be present at one of your meetings, and deliver to you an address—to which I could not consent for the reason of debility in the organs of my speech—Mindful of these things, and thankful for honors received, I now offer you, in testimony of my respectful regard, this manuscript address. There are subjects, in my view important, which I wish to bring to your consideration, while I urge you to such action in regard to them, as becomes patriotic citizens. The motives which induced you to associate, and thus form a society for the improvement of agriculture, I have, from the first, regarded as truly patriotic and praiseworthy. Supposing as I do, that you have been faithful to the obligations you assumed in forming your association, I do not doubt that, in the enlargement and greater activity of your minds, as well as in the better condition of your husbandry, you are receiving a tenfold reward for what it has cost you to be members of that society.

Agricultural societies are not *now* to be regarded as experiments. They have been in use long enough—the experiment of their use has been tried in states and countries enough, to bring all questions, in regard to their practicable utility, to a satisfactory solution. Wherever such societies have had fair experiments, they have always proved to be very useful, and in most cases, far more so than had been expected. Several years since, as many of you know, the experiment of agricultural societies was tried in most of the countres of this state. These societies came into existence under the patronage of government, and were endowed, to a small extent, with funds from the public treasury. But unfortunately, they were obnoxious to the political party which soon acquired the ascendency. Of course, government ceased to regard them with complacency, and sought rather to embarrass and crush them, than to sustain and build them up. Under circumstances so adverse, it was not to have been expected, that the societies could achieve much, either for their own reputation, or the benefit of community. Yet it is believed that, opposed and embarrassed as they were, they did produce much good fruit, and were the means of adding millions to the wealth of the state. That these societies, operating successfully, as doubtless they were, although greatly embarrassed, should have been discontinued, has been viewed by many of our most worthy citizens, as matter of deep regret. Had they been continued to this time—been patronized by government, and sustained by public opinion, there is no calculating how far the agriculture of the state might now have been in advance of present attainments.

It is I think obvious, that the Legislature of this state have *always*, but especially, within the period of the last 15 or 20 years, been altogether too neglectful of agriculture, and some other common, yet fundamental interests of community. In illustration of this remark, I will take the case of the Canada thistle. Within the last 15 or 20 years, this noxious weed has been spreading in the country, especially in Western New York, with a fearful and portentious rapidity. Already, it has gained possession, to a greater or less extent, of nearly every farm in the country. As all admit, it is a tremendous evil, an evil too not soon to be got rid of—not in one generation—not in two—not in many—probably never. In some parts of the state, especially the western, lands are not worth more than half as much as they would be, if the thistle were removed. Calculate then, if you can, the vast amount of damages to which the state is subjected, in consequence of the introduction and spread of this pestiferous plant. How many hundred millions would it require to make good the damages? Now, by seasonable, persevering, and efficient legislation, this monstrous evil might, with almost infinite ease, have been prevented. Why did not legislatures act upon the subject? Petitions were sent up, at different times, fully apprising them of

approaching danger, and praying for protection. Yet, they did not act. That they did not is *now*, and will continue to be, perhaps down to the latest posterity, matter of the deepest regret. From the disastrous consequences of neglecting duty in the case here refered to, let future legislatures of this state, and especially, let legislatures of the western states, take warning not to neglect the intetests of agriculture.

It is not true, as announced not long since by an honorable committee of the Senate, that agriculture needs no legislative assistance—that it needs no stimulating agencies, and that it thrives best when left entirely to itself. It would be easy to show, if it could be done without trespassing upon your patience, that the sentiment thus announced, is contradictory to universal experience. It has been found in all ages and countries, that either to bring agriculture into existence among savages, or to promote its progressive improvement in countries where it already exists, requires the use of exciting causes. The history of every preceding age, and of every country, conclusively proves that the love of gain, although a strong motive to action, is not alone sufficient to ensure a thrifty condition of agriculture. Other stimulating agencies are necessary. Among the stimulating agents which, in modern times, have been successfully employed for the improvement of agriculture, those chiefly relied upon are the following: Legislative enactments, granting bounties, &c.—agricultural societies, practicing the premium policy—schools, teaching the elementary principles, and, to some extent, the theory and practice of agriculture—books, and especially periodicals, devoted to the farming interest. In many countries, and in some parts of our own country, these means, or some of them, have, in modern times, been brought into use for the improvement of agriculture, and it is believed they have rarely failed of producing satisfactory results. Wherever these means, or only some of them, have been faithfully and judiciously employed, agriculture has taken a new start, and run entirely ahead of all former attainments in this fundamental art.

It is believed by many, that the general interest of the state might now be essentially benefited by legislative enactments, reviving agricultural societies, with sufficient endowments from the public treasury. This is an important question. Of the practicable utility of such societies in this state, and that too to an extent almost inconceivable, I have not the slightest doubt. If agricultural societies, with proper endowments, should come into operation in the several counties of this state, and be well sustained, they will do *good*, and to the amount of that good, no limits can now be set. The only questions which labor in my mind are these: Is there patriotism enough in each of the counties to sustain an agricultural society? Can suitable men be found for the management of its executive concerns? Are the farmers of this state, in general, sufficiently domesticated, that is, do they consider themselves as at home? Do they intend to spend their days on the farms which they now occupy, and ultimately to transmit them to their children? I should consider the migratory character, recently and perhaps now, so prevalent among the farmers of this state, as highly adverse to the successful operation of agricultural societies. Farmers, intending to emigrate, are not apt to care much about improving their agriculture, and many of them, I fear, care little in what condition they leave their farms, provided only they can dispose of them to their own advantage. Permit me here to remark, that this unsettled and migratory state of society, bears, with a deadly weight, on the general interests of agriculture.

Notwithstanding the doubts and discouragements which have been expressed, I firmly believe that, in many at least of the counties of this state, agricultural societies can be sustained, and rendered exceedingly useful. That such would be the result, if an agricultural society should be instituted in this county, with proper endowments, I can scarcely doubt. Certainly I hope the experiment will be tried, and that opportunities will be given for the trial of such experiments in all the counties of the state. If the legislature, or if any future legislature, shall be inclined to act upon the subject, the proper course to be taken, I should think, will be, to provide funds for the use of agricultural societies in all the counties—to be granted, however, only in cases of proper organizations, and on compliance with prescribed conditions—to be withdrawn too whenever conditions shall fail of being complied with. On this subject it remains for me only to make two remarks. 1st. Agricultural societies, in order to be successful and useful in the counties of this state, must be patronized by the legislature, sustained by popular favor, and endowed to some extent with funds from the public treasury. 2d. In order to render *any* agricultural society successful in its operations, it is indispensable that it have a good president, and an able and faithful board of executive officers. The president especially needs to be a man of peculiar qualifications. He should be peculiar for the interest he takes in the cause of agriculture—peculiar for his willingness to spend time, and money if need be, in discharging the duties of his office—peculiar too for his habits of punctuality, for he must never fail of being present at the meetings both of the society and executive board. In counties where suitable men cannot be obtained for executive officers, it will be in vain to institute agricultural societies.

(To be concluded next week.)

Culture of Celery.

Friend Tucker—In forwarding you the amount of subscription for the next volume of your valuable paper, I will fill up at least, a part of the blank paper with some remarks that may be of use to your numerous readers. I shall, of course, leave it entirely to your discretion, whether the scraps I forward you be worthy of publication, or not. There are many useful plants, which are easy of cultivation, and which would add greatly to the health, variety and economy of the table, if they were more generally introduced into our gardens. Among the great variety of edible vegetables, those which can be rendered available for *winter* use, are of the first importance, as that class is comparatively small, and vegetables scarce in the winter season. Many of these are neglected, for want of knowledge how to raise, preserve and prepare them for use. Celery is a plant as easily raised as cabbage, and as easily preserved, and may be used as a most excellent sallad through the whole winter; yet how few are there who raise it, or at all know its good qualities? Some years ago I became theoretically acquainted with the character and culture of this plant; but such were the seeming difficulties, that I had not the courage to undertake its culture. More subsequently I made the attempt and succeeded very well in raising it; but lost all my labor by not knowing how to preserve it. I adopted Cobbett's plan of placing two boards in a roof-like position on the top of the ridge; but when I came to take my plants they were all rotten. This failure caused me to abandon raising the plant for several years; but being fond of the vegetable I again attempted its culture, and took the most simple plan for its preservation, and succeeded to my entire satisfaction. Since then I raise it every year and have it on the table every day through the whole winter. I will now proceed to give a detail of my mode of raising it. I sow the seed in a warm situation on the first of April—a few seeds will suffice, as 100 plants will make a plenty for a common family. In the latter part of June or first day of July the plants must be set out; let the ground be prepared as follows: for 100 plants dig a trench 50 feet in length and 10 inches deep—the width of the spade is sufficient. In this trench put 2 inches of well rotted manure, or rich vegetable mold, into which set the plants 6 inches apart, and immediately after setting, water them. If the plants are covered by laying boards lengthwise over the trench, for two or three days and watered each day, it will greatly facilitate their striking root and insure their growth. As the plants grow, gradually fill up the trench, and continue to earth them up every two weeks till fall, taking care not to cover the top bud. By thus earthing up a ridge of some two feet or 18 inches will be raised at the end of the season. About the time of securing cabbage, Celery must also be secured. I choose a time when the ground is wet, and begin at one end of the ridge, and clearing away the earth, dig them carefully up by the roots, with as much dirt as will adhere to them and pack them away in the cellar, placing them in a standing position with the roots compactly pressed together. Here they will keep without any further attention; and are at all times handy for use. If any admirers of this plant should be so unfortunate as not to have a cellar, I presume if the plants should be taken up as described and packed in the same manner, they might be successfully preserved by covering with dirt, in the same way that farmers cover their potatoes or turneps.

Salsity or Vegetable Oyster.

This wholesome and excellent root is not sufficiently known, nor duly appreciated; and although it can never rival the real oyster, yet it certainly has a considerable similarity of taste. This resemblance of taste, however, depends much on the mode of cooking, the ignorance of which, I presume is the chief cause of their being so little used. Precisely the method by which carrots or parsneps are raised, will answer equally well for the Vegetable Oyster; and the latter, like the parsnep, will stand the severest frosts of winter without injury. I will state two methods of cooking them.

First, *To make Vegetable Oyster Soup.* Cut the roots into thin slices, and boil them 20 minutes in clear water, then add the proportion of one tea cup of milk to one quart of the water, and add butter, salt and pepper to suit the taste, and you have an excellent *oyster soup.* I need not tell the intelligent cook that no more water must be put in, than what will make soup of a proper consistency.

Second. *To make Vegetable Oyster Fraises or Fritters.* Boil the roots in milk and water, till completely soft; let the proportion of liquid be such, that when the roots are thoroughly mashed and mixed therewith, a small quantity of flower may be added to bring the whole to the consistency of batter—season with salt and pepper, and fry as griddle cakes, in butter or pork grease—add butter to the cakes—and whosoever loves oysters will call such cakes good.

To Destroy Bugs in Peas.

One more fragment and I am through. I noticed in No. 45, (Nov. 11th,) of the current volume of your excellent paper, a communication from your intelligent correspondent Dan Bradley, in which he has detailed a number of useful experiments. But in his experiments with the peas which he informs us was made with a view to the *destruction of the bugs*, he does not inform us whether scalding had the desired effect. We see in his experiment that the vitality of peas will not be injured by a submersion in boiling water for the space of three minutes. Now I have tried an experiment of the same kind and for the same purpose; but I was by no means so nice in conducting it as your above named correspondent. I did not count the peas nor did I notice the time. I was mainly intent on destroying the bugs if possible. To this end I poured the boiling water on the peas and let them stand till the water cooled. I then poured off the water and commenced sowing my peas, when to my astonishment the bugs were crawling about as lively as ever! This settles the matter with me, that scalding will do no good in killing the bugs; and I am equally certain that in the way which I performed it, the vitality of the peas was greatly injured; not half of them came up. The only successful method therefore, in getting rid of the bugs, is, to sow *old seed*, two or more years old. I have sown peas which I knew to be four years old, side by side with new seed, and could see no difference in their vegetation or after growth.

Yours, &c. R. W. P.

North Union, Ohio, Dec. 26th, 1837.

Every Farmer should, for his own Interest, be a

a Subscriber for an Agricultural Journal.

NO.—IV.

In my preceding essays, reasons were offered wherefore subscribers for the Genesee Farmer should not discontinue their subscriptions. Others, many others remain still to be offered. But as a new volume of the Farmer is now commenced, and the time for discontinuing supposed to be past, I shall in this, and in subsequent essays, address my arguments not only to subscribers, but to all others into whose hands these essays may fall. If the reasons offered, or to be offered, furnish valid arguments against discontinuing subscriptions, they also furnish arguments equally valid in favor of becoming subscribers. Let it then be understood that, henceforth, I shall consider myself as addressing the whole agricultural community.

Several reasons, worthy it is believed of great consideration, have already been offered in favor of reading agricultural periodicals. But as the utility of such publications is disputed, it may be well to stop here, and examine the subject with reference to objections offered. It is asserted often, and frequently with an air of triumph, that neither books nor periodicals treating of agriculture, are implements of husbandry, and that it is most absurd to think of using them for the benefit of agriculture. Is it so? It is admitted, they are not implements of husbandry, yet it has been supposed that, in their own appropriate sphere, they might be rendered exceedingly beneficial to the interests of husbandry. If there is in existence a class of farmers who have already attained to such perfection in the arts of husbandry, as to be incapable of further improvement, to that class, it is admitted, that neither books nor periodicals treating of agriculture, will be likely to do much good. That there is in existence a class of farmers, and a very numerous one, who in their own conceit have obtained to such perfections, is certainly true. With such farmers, it is useless to attempt reasoning. But to all others who have not been so fortunate as to arrive at perfection in the knowledge of their art, it is believed, agricultural journals are susceptible of being rendered exceedingly useful.

But there is a question to be settled. It seems to be supposed by many, that printed language, when employed for communicating ideas in relation to agriculture, cannot be understood. None appear to doubt that, in regard to all other subjects, useful knowledge can be communicated by printing, and yet, strange as it may seem, many there are who dispute the practicability of rendering the press subservient, in the smallest degree, to the great interests of agriculture. It is important that the question be settled, and now what are the facts? In the late volumes of the Genesee Farmer, have been published many important discoveries in relation to practical husbandry. Have these publications been understood? Or is printed language, when employed for the use of agriculture, so mystical as to be incapable of communicating ideas? It has not been known until recently that apples could be used advantageously as food for fattening swine, and for the thrifty keeping and fattening of other animals. The Genesee Farmer has published these facts, intending thus to spread the knowledge of them abroad in all community. Has this been understood? And have farmers gained the

knowledge intended to be thus spread abroad? Not a few experiments have been published in the Genesee Farmer, the results of which have detected some great and mischievous errors in the practice of husbandry. For instance, experiments have been published, which show most conclusively that topping corn stalks at any time while they are green enough to be worth topping, injures the crop, and that to an extent so great, as to render the practice exceedingly unprofitable. Has this been understood? Recently, an experiment has been published in the Farmer, which shows that the application of hot water to *seed corn* is a dangerous and mischievous practice. Has this been understood? Now what are the facts in relation to these several subjects of inquiry? Has printed language, in the cases adduced, been understood? And has it answered the purposes for which it was intended? I appeal to the readers of the Genesee Farmer.

ECONOMICUS.

From the Cultivator.

Steamers--Rotary Steam Engines--Manures.

Buffalo, Nov. 22, 1837.

MY DEAR SIR—In the Sept. No. of the present vol. of the Cultivator, there is an admirable plan for a *cheap* steaming apparatus, which would be for the advantage of every one keeping 8 or 10 hogs, to use for steaming all the food to be given them. But I should like to see something more perfect than has yet come under my observation, which shall, without too much expense, and without liability to get out of repair, cook a larger quantity of food in the shortest time, and with the smallest quantity of fuel. It appears to me, my dear sir, that this is now the *great* desideratum for every one who has much stock of feed. Every person is convinced of the great advantage of grinding their grain before feeding it, yet after it is ground, without subsequent cooking, it will yield only a part of its nutriment. Now *steaming*, if it can be done effectually, will not only answer the purpose of both grinding and subsequent cooking, but add, also, materially to the quantity of food which can be used, besides effecting a larger saving of labor. I will illustrate this by an example. With a boiler of sufficient power to generate steam of 400° or 600° of Fahrenheit; a furnace so constructed as to apply fuel in such a way as to produce this heat, and a vat sufficiently capacious to hold a large quantity of food, *and hold the steam at the above temperature*, corn can be cooked *on the cob, and in the husk in a few minutes*, by which all the labor of husking, shelling, sending to mill, and loss of toll, will be saved, while the husk and cob is added to the mass of food, and contributes materially to its value by making it lighter and less cloying to cattle. The stalks can then be steamed whole if required, or which would be preferable, after being cut into pieces suitable for feeding. I have seen no account of any such experiment: but it is my opinion that *one* acre so used, would be worth more than *two*, perhaps *three*, fed in the ordinary way. In the same manner oats, barley, buckwheat or any other kinds of grain, may be steamed so as to extract every particle of their nutritive qualities, and without any expense of threshing, milling, &c. The saving in all vegetables fed to swine would be proportionably great, and their nutrition would be much increased for feeding cattle. If hay also can be cooked to advantage, and I doubt not it can, the value of such an apparatus would be vastly enhanced. When we consider the importance of this subject, it is a matter of surprise that no premium has yet been offered for a perfect apparatus, by any of our societies, agricultural or mechanical, numerous and enlightened as they are throughout the country; but in the absence of any such premium, there is sufficient inducement in the profit in manufacturing and selling such as could be warranted durable, effective and capacious, and at not too great a price, to justify any ingenious and enterprizing mechanic to perfect one.

The *boiler* shown in the Cultivatot, vol. 2, No. 7, seems to me perfect enough. The material for it, as well as the cocks, should be strong and durable, and the size proportioned to the use required.

The furnace should be so constructed, especially when wood is used for fuel, that in addition to exposing all the bottom of the boiler to the fire, the *flue should pass once entirely around* it in an ascending direction, so as to expend all the heat on the boiler; and this may be done with brick, or I think more effectually, by a flue to fit the boiler made of thick boiler iron. This would allow the smoke and flame to pass off readily and without incurring any risk from the carelessness or botching of masons.

The only thing that remains then, is to deliver the steam into a vessel suitable for holding the food to be cooked. And *here* it is especially, that we want the aid of science and experience. A reservoir of copper or iron would undoubtedly answer the purpose; but if we are going to cook on a large scale, stalks, hay, &c. we require *a great deal of room*, and besides the exposure to corrosion in using metals, it would be too expensive. If we wanted only a temperature of boiling water, or 212° Fahrenheit, most kinds of wood would sustain this heat and pressure; but to accomplish our purpose effectually and speedily, we require a temperature twice or three times as high. Can oak, or pine, or cedar sustain it? Here we must have *absolute certainty*; we must know what kinds of plank are suitable, and what thickness—how secured, by iron clamps or otherwise, and how much this strength is to be increased for every increase in size. The form should, I think, be an oblong box, and for a moderate size the one before referred to is of a proper kind; if enlarged considerably, it should be made longer, and open at both ends. We want the exact proportions. Is it necessary to carry off the condensed steam, and if so, in what manner? The foregoing seem to be the essential features to be established on this subject, and are they not worthy to be solved in the most scientific and satisfactory manner? Who that has 15 or 20 head of any kind of stock in feed, would hesitate to give 50, 100 or even $200, for a cooking apparatus, that with a little addition of time and fuel will save him half his food, or with the same quantity will enable him to keep twice the number of cattle? Let such an one be made, and my word for it, the inventor will have as much call for it, as Dr. Nott had for his celebrated stoves. I conceive such an improvement to be of far greater value than all the inventions of ploughs, harrows, horse rakes, mowing and threshing machines, *et id genus omne*, that have been constructed, and patented, and exhibited, and talked about, and cost so much money within the last ten years.

Here I will just allude to two other important appendages to a large farming establishment. The first is a small simple rotary steam engine, to be propelled by connecting it with the boiler heretofore described. Let this occupy a central position, between the barn, the pump, the woodhouse and milk room, and by connecting bolts or shafts, it hardly matters how long, it can, for a trifling expense, be made to thresh all the grain, cut all the fodder, pump the water, cut the wood, turn the grindstone, churn the milk, press the cheese, and do any other work within its reach. Engines every way adapted to this purpose, ought to be kept for sale with other farming utensils, where they can always be had at a moderate price.

The other and only subject I will mention is a *stercorary*, and as every man who reflects on the subject at all cannot fail to be convinced of their great utility, I shall confine myself to a few queries.

1st. Can there be a more suitable place for it than an excavation under the stable, which shall receive the manure from above through a trap door?

2d. Is a stone wall laid in mortar sufficient to retain all the moisture and salts that are liable to escape literally?

3d. Is a *stiff clay* bottom and sides sufficient for the same object?

4th. What would be the effect on the timbers and plank, not coming in contact with the manure, but exposed to the effluvia, and what kind of timber will best resist this deleterious influence?

5th. Should there be any ventilation to it, and how much?

A full answer to all or any of the above suggestions, will confer a general benefit on the community, and particularly oblige, Yours, very truly,

JUDGE BUEL. R. L. ALLEN.

REMARKS.

There are some points in the above which seem to demand *our* attention; but our remarks must be brief. And first, we are inclined to believe, with Mr. Allen, that thorough steaming, will supercede the grinding of grain for farm stock—it will burst the globules which contain the dextrine—to profit by a recent discovery—the nutritive matter of the grain. 2d. We do not like the flue around the boiler—the whole boiler, except the upper rim, about the flange should be exposed to the flame. The brick work may be conformed to the shape of the boiler, leaving an interval of four or five inches between them; the bottom of the wood grate may be two to four inches above the bottom of the kettle with an ash pit below—the flame then comes in contact with the exterior of the boiler, and produces a much stronger effect than when confined to a flue. 3. In regard to the rotary steam engine—we believe it can and will be made subservient to all the stationary purposes of the farm, where water, wind or horse power are not preferred. The same power, we have little doubt, will soon be employed to propel all the stationary machinery of the farm. 4. As to manures, we would have no stercorary. We would prefer, to it, under the stables, a cistern, for *liquid* manure only. We hold that all winter made manure should be applied in spring, to hoed crops, before fermentation has progressed far. That coming from the stables may be benefitted by being kept under cover. though we think it equally serviceable to have it spread in the cattle yard, that it may be mixed with its litter, and subjected to the tread of the cattle. It will then neither become fire-fanged, nor undergo excessive fermentation, before it can be employed for the hoed crop. But if stercoraries are used, under beams, stone wall, in a clay soil, and a stiff clay bottom, will, after a little time, become sufficiently retentive to prevent the loss of liquids; but ample ventilation is required to prevent the rapid decay of the timber and plank of the floor. Give no air, says our friend Tomlinson, or give a free circulation, if you would preserve wood in floors.

From the Farmer's Register.

Observations on the Agriculture and Horticulture of Western New York.

The soil of the interior of New York is well known; and is not perhaps to be surpassed either in fertility or durability, by any tract of similar extent, in the United States. In some of the contiguous states, and in other parts of the same state, the system of agriculture is doubtless more perfect. Where nature has been less bountiful, a greater necessity has existed for man to exercise his industry. Improvement being once begun, a spirit of emulation carried it on; and every farmer felt a pride in at least keeping pace with his neighbors. Such are the circumstances under which some of the finest districts of Pennsylvania and eastern New York, have attained their present state of productiveness, which, under an opposite treatment, would long since have become impoverished, and turned out as waste land. But the soil of western New York has borne up, and may long continue to be extremely productive, under a rigid system of exaction. Even in the oldest settled districts, the fertilizing properties of the soil exist in full vigor, without ever having received material aid from the proprietors. Relying, as they do, on its natural strength, which, indeed, can scarcely fail them in the most disastrous season, the most abundant crops continue to be grown, whilst the gratitude for such unmeasured bounty has not been manifested by making that careful return to the land, which in less favored countries, is necessary to perpetuate its fertility. Such being the course of cultivation, some of the distinguished agricultural writers of that state have apprehended that the soil might shortly suffer a rapid deterioration, by the abstraction of the particular food, necessary to the growth of their chief staple. Judging, however, from the quantity of lime in the land, it may be regarded as almost inexhaustible; and all fear, therefore, of its becoming impoverished for a considerable length of time, must arise from ignorance of the fertilizing ingredients which enter into its composition. But it is the part of wisdom to look ahead, and to provide in time against the possible occurrence of such a contingency. If western New York would continue to be the granary of an immense extent of country, the productiveness of its soil should not only be maintained unimpaired, but every effort should be used to increase it. It cannot be denied, that, bountiful as nature has been, the products of the soil might even now be much enlarged, by a judicious use of putresent manures, and by occasionally giving an additional supply of lime, to repair the gradual waste occasioned by the heavy cropping to which the country has been subjected. So little necessity has yet existed, however, for the application of lime, that its value and importance cannot be supposed to have claimed general attention. Indeed, it is more than probable, that but a comparatively small number of persons are fully aware of the source whence the fertility of the soil is derived. But amongst the intelligent cultivators, an interest has been awakened on the subject; and experiments have been made to ascertain its effects, even on lands already highly calcareous. Should the result be found as beneficial as is anticipated, a stimulus will thus be given to a more extended application; and the example of practical agriculturists will doubtless be followed by a people alive to their interests.

The limestone lands of New York may be estimated as capable of producing on an average from twenty to twenty five bushels of wheat per acre. In some instances, as much as forty have been grown, and an approximation to this might be more frequently realized, if the system of farming, were, in all respects, judicious. Of oats and corn, the yield may be from fifty to seventy-five bushels. There is, however, not that appearance of luxuriance in the crops, which we have been accustomed to see growing on lands made rich by manure alone. A traveler, therefore, in passing through the interior of New York, would feel some incredulity, or at least surprise, on being informed that the fields within his view would yield the above mentioned

quantities, unless he had some knowledge of the products of calcareous soils. It appears to be an admitted fact, that the action of lime does not tend to increase the quantity of straw in the same proportion that it imparts nourishment to the grain. For this reason, the effect of putrescent manures on calcareous lands, is not so obvious in the appearance of the crop while growing, as it is in the product, when it comes to be measured. The most productive lands in eastern Virginia, can never, except under the most favorable circumstances, be relied on for a greater return than twenty bushels of wheat, and forty or fifty of corn to the acre, accompanied, in most cases, by a vast amount of straw or stalks; while these are the minimum products of land containing any considerable portion of lime, and the quantity of straw such as to promise only an indifferent product of grain.

The most serious evils which the farmers of New York have to contend with, in regard to the crop of wheat, are the liability of the plants to be winter-killed in so rigorous a climate, and the prevalence of that formidable pest, the Canada thistle. The Hessian fly is only to be dreaded on lands of inferior quality; and the rust or blight is induced only by extraordinary seasons, when the period of harvest is protracted beyond the usual time. The comparative exemption from the rust, is doubtless to be ascribed, in part, to the calcareous nature of the land, which does not promote the too luxuriant growth of the stem. To overcome the effects of climate, the culture of spring wheat has been partially adopted in some districts within the last few years; and the results, in most cases, have been highly encouraging. It is a beautiful crop, and is readily distinguished from other varieties. The success which has attended the culture of this grain in New York, has caused it to be introduced into more southern climates; and the most sanguine expectations have been formed of its advantages, without duly considering the character of our seasons. But even there, the spring wheat is rejected by many: and if it is profitable any where, it must be so in a soil and climate so propitious, where the scorching rays of our southern sun, which frequently dry up our latter grain, are seldom felt; and where an excess of moisture, so far from producing an over-growth of straw, and its consequent attendant, the rust, is accompanied with no other ill effect than a temporary suspension of the labors of the farmer. Although the spring wheat succeeded so well in Virginia, and even farther south, during the past season, yet it should be borne in mind, that in many of its features, that season was like a northern summer; and it should not be hastily inferred from thence, that this wheat will do equally well during a series of years. On the contrary, the successful results of repeated trials should be regarded as indispensible to the general adoption of this crop, in the agriculture of the south. It is true, our discouragements have been very great; and it is natural that almost every alternative should be resorted to, by our farmers, which may promise relief from the continued failures of the wheat crop, like those we have been subjected to, for the last four or five years. But, on the other hand, let us not despair. It is not to be supposed that these failures are to be of lasting duration. And even if they are, the season that would destroy one crop, would also destroy the other, except in so far as one of them would be exempt from the action of the winter's frost. It is an old remark, founded upon accurate observation, that seasons of the same character cluster together. Until the last few years, our crops of wheat were abundant, and of good quality. Their failure cannot be ascribed to any other cause, than the unfavorable seasons; and by no means, as some have supposed, to a sudden deterioration of the soil. From the character of the last winter and summer, we may now reasonably conjecture that more propitious seasons are at hand, and that the eyes of the farmer will once more be gladdened by bountiful crops. It is earnestly to be wished that the spring wheat may realize the most sanguine expectations; but it is greatly to be feared, even if it should be found fully to succeed, that its introduction may bring with it a pest, which will more than counterbalance all its advantages. If the Canada thistle should ever effect a lodgment in Virginia, where we have so much waste land, it will be impossible ever to eradicate it. This species of thistle is a congener of our common downy thistle, (*cricus lanceolatus*,) and has so little preference in regard to soil, that it flourishes equally well in all situations. It is a perennial plant, and every effort to destroy it, either by digging up the roots, or cultivating the land, serves only to invigorate it. It abounds extensively in New York, though happily its progress is partially arrested by birds exclusively seminivorous, which feed on it in great numbers. It was first discovered in Canada, by a jesuit, who, thinking it might be an acquisition to his botanical friends in Europe, transmitted it thither; and from this small beginning, it has spread over England, and several portions of the continent, where it is known by the appropriate name of the "cursed thistle."

The small size of the Indian corn on lands so fertile as those of New York, is calculated to excite a feeling of surprise. It may, in part, be owing to the influence of climate, but in some measure, and perhaps chiefly, to the character of the soil. A field which came under observation, containing two varieties, namely, the Dutton, and a kind from Vermont, exhibited a greater growth of the latter than of the former, though if climate had alone operated, the relative size should have been reversed. The southern varieties are difficult of acclimation, and attain a much larger size than those in general cultivation; but this might be expected to continue only for a few years, and may be attributed to the constitution of the plant, which cannot at once, adapt itself to the change. On the other hand, the small northern corn, when brought to our southern climate, is at first small, but gradually increases in development, until, after a due course of cultivation, it exhibits the gigantic proportions of our own varieties. The opinion has been entertained, that the introduction of seed corn from the north, to take the place of the large southern kinds, together with the consequent change of culture from thin to thick planting, would be followed by an increased product. Experience, however, does not sanction the correctness of this opinion, except on land of the best quality. The close planting, which is requisite in the small kinds, to produce a full crop, would here be attended with disastrous consequences, in a dry season. Under a similar constitution of soil, the result might be more favorable; for the small varieties are certainly more productive than the large, under circumstances equally conducive to the growth of each. The size of the ear is greater in the former, in proportion to the stalk, than in the latter; and the number of stalks is multiplied several times beyond the closest planting that is ever practiced in Virginia. When the corn attains its full size, it is difficult to distinguish the rows, and the field is then termed "a swamp." If the crop is sufficiently luxuriant to merit this appellation, a heavy yield is anticipated. The largest product to the single acre in Virginia, has, perhaps, seldom exceeded seventy-five bushels, after the utmost care and attention have been bestowed in the preparation of the land. On the calcareous soils of New York, from seventy-five to one hundred bushels are frequently gathered; and in some remarkable instances, as much as a hundred and twenty, and even a hundred and fifty, have been obtained. The chief obstacle to the production of full crops, is, the shortness of the season, and the consequent liability to early autumnal frosts. Of late years, the corn has been materially injured from this cause; but when the earliest varieties come to be generally cultivated, less danger is to be apprehended. The crops are seldom affected by drouth.

The product of oats is extremely abundant. They are more extensively cultivated than corn, as they constitute the principal grain for horses. Peas mixed with oats, are a favorite food for hogs: whole fields are sown broad-cast, the oats serving to support the vines, or rather to prevent them from trailing on the ground. It is the larger varieties of the garden peas that are used in field culture, and the product is about twenty-five bushels to the acre. It is objected to them, however, that swine are so fond of them, as to acquire a distaste for other kinds of food.

[*To be continued.*]

I prefer ineloquent, or reserved prudence, to loquacious folly.—*Cicero.*

Extensive Sale of Imported Stock,

At the Old Norton Farm, East Bloomfield, five miles west of Canandaigua, Ontario Co., New York.

NUMEROUS applications having been made to purchase this stock, the proprietor has concluded, that in order to afford a fair opportunity to those who have already made enquiries and others desirous of obtaining the breed to offer the same at

PUBLIC AUCTION,

On Wednesday the 2d of May next,

on which day will be sold twenty *Improved Durham Short Horns*, Bulls, Cows and Heifers of various ages. Amongst the former is the famous Bull "ROVER," which was bred by the Earl of Carlisle, got by Rockingham, dam, (Cherry) by Wonderful, gr. dam by Alfred, &c. &c. Rockingham was by Fairfax, dam (Maria) by Young Albion; gr. dam, (Lady Sarah) by Pilot; gr gr. dam by Agamemnon. Also, ALEXANDER, ORION, SPLENDOR and others. And of the Cows and Heifers, BEAUTY, PRIMROSE, own sister to Reformer, PRIZE, LADY BOWEN, BRILLIANT, &c. &c.

Three full blooded Mares and one 3 year old Stud colt, of pure racing breed, viz:—Brown Mare FALCONET, by Falcon, dam by Catton, (Hindcliff's dam) Hannah by Sorceror Amelia, &c.

Bay mare Miss ANDREWS, sister to Caroline, by Catton, dam by Dick Andrews; her dam by Sir Peter; Play or Pay's dam by Herod, &c.

Chestnut Mare JESSICA, by Velocipede, dam by Sancho; gr. dam Blacklock, and Theodore's dam.

Bay stud colt, HUMPHREY CLINKER, by Allen's Humphrey Clinker, dam Miss Andrews, &c.

The well known stud horses TURK and ALFRED, whose stock for the two seasons they have stood is unsurpassed.

Likewise about 20 Rams and a few Ewes of the improved New Leicester breed of Sheep. These are chiefly from a Ram belonging to the celebrated breeder Sir Tatton Sykes, for which he paid 300 guineas.

The whole of the above stock were selected from the highest order of blood in England by thoir present owner who imported it direct to this country, and can be recommended as worthy the notice and confidence of breeders.

Pedigrees may be had on, or previous to the day of sale, and further information obtained on application to

THOMAS WEDDLE.

East Bloomfield, 1st January, 1838.

N. B.—The terms of payment will be liberal to those who wish.

To Agriculturists and Others.

THE subscriber, being just returned from England, made such arrangements whilst there as will enable him to import any quantity of the different breeds of Sheep, Cattle and Hogs, in that country. Those persons who wish to get Imported Stock, will be able to do so by applying, if by letter, post paid, to

JOHN COWLEN,

Jan. 6, 1838. *Tully, Onondaga county, N. Y.*

N. B.—The passage money only will be required previous to their arrival in New York.

Nurseryman Wanted.

A SOBER industrious man who is well acquainted with the Nursery business, and who also understands the management of Green House Plants, will find constant employment and good wages, by applying by letter or otherwise to the proprietor of the Buffalo Nursery, Erie Co., N. Y. B. HODGE.

Buffalo, Jan. 6, 1838. jan6f3t

☞ For sale as usual a great variety of Fruit and Ornamental Trees, and Flowering Shrubs. Also, a large stock of Greenhouse and other Flowering Plants. Printed Catalogues sent to every applicant. B. H.

Fruit Trees For Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county, state of New York, a large quantity of Fruit Trees, grafted and innoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms. SAMUEL. MOULSON.

apr 15-tf

N. B. CASH will be paid for a few thousand two years old APPLE TREES

Seeds for 1838.

JUST arrived at the Rochester Seed Store, a large importation of English Field and Garden Seeds, of the growth of 1837; shipped from London this fall expressly to our order, and comptising a full assortment of the choicest kinds, such as

Cabbage,	Ruta Baga,	Rye Grass,
Cauliflower,	Mangel Wurtzel,	White Dutch
Brocoli,	Sugar Beet,	Clover,
Radish,	Lucern,	&c., &c.
Turnep,	Trefoil,	

These Seeds are from one of the best establishments in Europe, and the perfect satisfaction which they have hitherto given, is sufficient guarantee of their character.

Dealers and others supplied at wholesale on very favorable terms. nov18tf REYNOLDS & BATEHAM.